

REMARKS

I. Claim Rejections of 35 U.S.C. §103

The Examiner quoted the following section of 35 U.S.C. 103 § (a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The Examiner rejected claims 1-13, 15-27, and 29-32 under 35 U.S.C. 103 § (a) as being unpatentable over Urayama et al (JP-40-5217881 A) in view of Fitzsimmons et al (U.S. Patent No. 6,493,078) and Nakano et al (6,613,588).

Regarding claims 1, 14-16, 17, and 29-30, the Examiner argued that Urayama et al discloses a resist coater with an evaluation unit for detecting dust quantity of resist film on the wafer which has all the features of the present invention, except that the coater cup comprises a transparent material.

The Examiner argued, however, that such a feature is known in the art as taught by Fitzsimmons et al. The Examiner asserted that Fitzsimmons et al is from the same field of endeavor and teaches that a part of the coating bowl (citing reference numeral 105 of Fitzsimmons) is made of transparent materials (citing transparent window and reference numerals 120, 220, 32 of Fitzsimmons) so that the detector (citing reference numeral 131 of Fitzsimmons) is located outside of the chamber for monitoring the substrate (citing reference numerals 115, figures 2, 3, 5, 6, 9 and column 4, lines 29-31 and column 6, lines 40-42 of Fitzsimmons).

The Examiner argued that it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Urayama et al by using a transparent material for the coater bowl as taught by Fitzsimmons

so that the light source and the detector are located outside of the coater. The Examiner argued that the rationale for this modification would have arisen from the fact that by using a transparent material or window for the coating and positioning the detector and light source outside of the coater would prevent the damages of the light source and detector due to the heat, dirt and moisture inside the coater.

The Examiner admitted that Urayama does not teach that the coating device is automatically terminated when the amount of dust exceeds a predetermined level. The Examiner argued, however that such a feature is known in the art as taught by Nakano et al. The Examiner argued that Nakano et al teaches that the plasma processing device with a particle detection optical system in which the etching operation can be halted if the total number of particles generated exceeds a reference value (citing column 9, lines 21-27 and column 18, lines 44-52 of Nakano).

The Examiner therefore argued that it would have been obvious to one having ordinary skill in the art to include in Urayama et al a terminating system as taught by Nakano et al. The Examiner argued that the rationale for this modification would have arisen from the fact that using such system would alert the operator know when the processing chamber need to be cleaned or maintenance.

The Applicants respectfully disagree with this assessment because. Fitzsimmons et al issued on December 10, 2002 based on an application filed on September 19, 2001. Thus, Fitzsimmons et al was not publicly available as a prior art reference with respect to 35 U.S.C. § 103(a) until December 10, 2002. Applicant filed his patent application in the United States on January 8, 2002. At the time of filing of Applicant's invention, Fitzsimmons et al was not a publicly available prior art reference for purposes of 35 U.S.C. § 103(a).

Additionally, Applicants are providing a declaration under 37 C.F.R. § 1.131 of prior invention to overcome the cited Fitzsimmons et al reference. Under 37 C.F.R. § 1.131, the oath or declaration must include facts showing a completion of the invention in this country or in a NAFTA or WTO (in this case, Taiwan, a WTO country) member country before the filing date of the application on which the U.S. patent issued, or before the date of the foreign patent, or before the date of the printed publication. When an appropriate oath or declaration is made, the patent or publication cited shall not bar the grant of a patent to the inventor or the confirmation of the patentability of the claims of the patent, unless the date of such patent or printed publication is more than one year prior to the date on which the inventor's or patent owner's application was filed in this country. Such a declaration under 37 C.F.R. § 1.131 is provided herewith.

Therefore, based on the foregoing, the Examiner's arguments with respect to Fitzsimmons et al and the rejection to claims 1-13, 15-27, and 29-32 are rendered moot. In light of the removal of Fitzsimmons as a proper prior art reference under 35 U.S.C. § 103(a), the Applicant submits that the arguments presented in the communication filed on December 22, 2004 are no longer moot and should be reconsidered and applied to the rejections set forth in the present office action. Applicant therefore requests reconsideration of the arguments presented in the communication to the Office dated December 22, 2003.

Regarding claim 3, the Examiner argued that the laser source is attached to the coater cup (citing Figure 1 of Urayama et al.). Applicant respectfully disagrees with this assessment and submits that the Examiner's argument with respect to claim 3 is rendered moot in light of the removal of Fitzsimmons, et al. as a prior art reference for purposes of 35 U.S.C. § 103(a).

Regarding claims 4 and 18, the Examiner referred to Urayama's abstract for resist coater. Applicant respectfully disagrees with this assessment and submits that

the Examiner's argument with respect to claims 4 and 18 is rendered moot in light of the removal of Fitzsimmons, et al. as a prior art reference for purposes of 35 U.S.C. § 103(a).

Regarding claims 2, 5-7, 12-13, 19-21, 26-27, the Examiner referred to Urayama's abstract for a laser source (citing reference numeral 10 of Urayama) and a laser detector (citing reference numeral 11 of Urayama). The Examiner therefore argued that it would have been obvious to one having ordinary skill in the art at the time the invention was made to use an edge emitting laser or a solid-state semiconductor light emitter because they would function in the same manner. The Examiner asserted that a substitution of one for another is generally recognized as being within the level of ordinary skill in the art. Applicant respectfully disagrees with this assessment and submits that the Examiner's argument with respect to claim 2, 5-7, 12-13, 19-21, 26-27 is rendered moot in light of the removal of Fitzsimmons, et al. as a prior art reference for purposes of 35 U.S.C. § 103(a).

Regarding claims 8 and 22, the Examiner referred to Figure 1 of Urayama for a spindle (citing reference numeral 15 of Urayama). Applicant respectfully disagrees with this assessment and submits that the Examiner's argument with respect to claim 8 and 22 is rendered moot in light of the removal of Fitzsimmons, et al. as a prior art reference for purposes of 35 U.S.C. § 103(a).

Regarding claims 9 and 23, the Examiner referred to Urayama's abstract for detecting dust. Applicant respectfully disagrees with this assessment and submits that the Examiner's argument with respect to claim 9 and 23 is rendered moot in light of the removal of Fitzsimmons, et al. as a prior art reference for purposes of 35 U.S.C. § 103(a).

Regarding claims 10, 11 and 24-25, the Examiner argued that it would have been obvious to one having ordinary skill in the art at the time the invention was

made to use the particle detection systems of Urayama for detecting the photoresist dust as a result of a wafer spin coating operation because the device would not function in the same manner. Applicant respectfully disagrees with this assessment and submits that the Examiner's argument with respect to claim 210, 11 and 24-25 is rendered moot in light of the removal of Fitzsimmons, et al. as a prior art reference for purposes of 35 U.S.C. § 103(a).

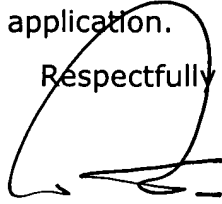
Regarding claims 31 and 32, the Examiner argued that it would have been obvious to one having ordinary skill in the art at the time the invention was made to include in Urayama one or more additional coater bowls if additional inspection is desired. Applicant respectfully disagrees with this assessment and submits that the Examiner's argument with respect to claim 31 and 32 is rendered moot in light of the removal of Fitzsimmons, et al. as a prior art reference for purposes of 35 U.S.C. § 103(a).

II. Conclusion

In view of the foregoing discussion, the Applicant has responded to each and every rejection of the Official Action. The Applicant has clarified the structural distinctions of the present invention by amendments herein. The foregoing discussion and amendments do not present new issues for consideration and that no new search is necessitated. Such amendments are supported by the specification and do not constitute new matter. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejections under 35 U.S.C. §103, and further examination of the present application.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned representative to conduct an interview in an effort to expedite prosecution in connection with the present application.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'Randy Tung', written over a horizontal line.

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